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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,357	02/28/2002	David A. Meckes	1174/146	6603
25297	7590	01/24/2005	EXAMINER	
JENKINS & WILSON, PA 3100 TOWER BLVD SUITE 1400 DURHAM, NC 27707			KOHNER, MATTHEW J	
			ART UNIT	PAPER NUMBER
			3653	

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/085,357

Applicant(s)

MECKES ET AL.

Examiner

Matthew J Kohner

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 September 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,-6, 9-13, 16-18, 21-24, 27, 28, 29-32, 35-37, 39, 40-42, 44-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Continuation of Disposition of Claims: Claims pending in the application are 1,-6, 9-13, 16-18, 21-24, 27, 28, 29-32, 35-37, 39, 40-42, 44-58.

## **DETAILED ACTION**

### ***Response to Arguments / Amendments***

Applicant has amended that claims to overcome the objection and § 102 and 103 rejections of the previous office action.

However, in updating the search based on the new language, Examiner discovered art that reads on previously indicated allowable subject matter, namely claims 16–18, 37, 39, 40, 44–47, 49 and 51–58. Examiner regrets the indication of allowable subject matter in the previous office action. This view of the above, this action is non-final.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Independent claims 1, 9, 21, 29, 37, 41, 48–50 and 58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to claim 1, 9, 21, 29, 37, 41, 48 and 50 the use of the term “a portion of the resource units” is unclear. This term is not defined in the specification. Further, the use of this in conjunction with the term “a ... size of a group of resource units” adds additional confusion. It would be unclear to one of ordinary skill in the art how to determine the difference between:

- a) a size (e.g. first, second or third) of a group of resource units; and
- b) a thickness of a portion of the resource units.

In regard to claims 9, 29, 41, 49, 50 and 58 the method comprises at least two steps. The first step is detecting the size of the group. The second step is of indicating *based upon the thickness* of a portion of the resource unit ... However, there is no step for determining, supplying, etc. that thickness in order for the indicating step to function. It is unclear where the thickness determination used in the indicating step comes from.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,-6, 9-13, 16-18, 21-24, 27, 28, 29-32, 35-37, 39, 40-42, 44-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,961,115 to Blanck et al.

In regard to claims 1, 9, 16, 21, 29, 37, 41, 44, 46-58, Blanck discloses a method of monitoring resource units in a group, comprising:

- (a) detecting a first size (the Near Full [NF]) of a group of resource units;
- (b) determining a thickness of a portion of the resource units (Col. 5, lines 36-37; Col. 7, lines 14-17); and
- (c) indicating when the group of resource units reaches a predetermined second size (Full [F]) after the portion of the resource units has been moved to the group (Col. 6, lines 57-59) and responsive to the determination of thickness in step (b).

Blanck does not specifically disclose utilizing the above method when resource units are *removed* from the group. However, using the above method in such an environment would be obvious to one of ordinary skill in the art.

First, Blanck alludes to the problem of using two different sensors to indicate when the stack is at two different levels (Col. 1, lines 35-65). The applicant addresses the same problem of having to use two sensors in background of invention section of the specification (Applicant's specification, page 3). Specifically Blanck states, "... the necessity to use two separate sensors adds to the complexity and cost of the printer (Blanck Col. 1, lines 58-59)." Compare with applicant's specification, page 3, "A disadvantage of this solution is the requirement of two sensors, thus increasing the cost of the machine." While Blanck's levels indicate "near full / full" conditions of a stack of sheets and applicant's levels indicate "near empty /empty" conditions of a stack of sheets, both devices are focused on the elimination of having to use multiple sensors. Therefore, using the same method of monitoring the resource units in a different environment would be obvious to one of ordinary skill in the art.

Additionally, Blanck addresses another problem common in the removal of sheets from a stack. Blanck discloses it is known in the art to use a sensor to sense a certain level of a stack and then utilize a counter to count the particular number of resource units which would bring the stack to a second particular level (Col. 1, lines 66+). While Blanck discloses this method for use in *adding* resource units to a stack, this method is also well known and used in *removal* of resource units from a stack (See e.g. US Patent No. 5,629,672 to Brown et al., Col. 6, lines 1-16). Blanck points out that while the counter eliminates the second sensor of the above monitoring method, the counter can still be inaccurate because the thickness of the resource unit may vary

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(Col. 2, lines 19+). Therefore, measuring the actual thickness of the resource unit is used in controlling the system (See Fig. 4, Block 62). The same motivation would be applicable whether sheets were being added or removed from a stack. Therefore, using the same method of monitoring the resource units in a removal environment would be obvious to one of ordinary skill in the art.

In regard to claims 2, 10, 22, 30, 45 while Blanck specifically discloses using his invention with an image forming machine, it would be obvious to one of ordinary skill in the art, that the method could be employed in monitoring other stacking environments such as a mail insertion system.

In regard to claims 3, 11, 23, 31, 42 the sheet thickness is determined before the sheet is added to the group (See block diagram, Fig 4).

In regard to claims 4, 12, 17, 24, 32 Blanck discloses a sensor which operates in the same way as applicant's sensor. Examiner is assuming the third size is top level 200 and the first size is level 204 or 200. Therefore, the sensor determines when first size is below third size (i.e. when the stack of paper is above the measured level) . Blanck's sensor determines when the stack is above/below the Near Full level. Therefore, Blanck's method operates in the same way, yet in a different direction. Such a change would be obvious to one of ordinary skill in the art.

In regard to claims 5, 13 Blanck discloses measuring the thickness of the sheet (Col. 5, lines 36-37).

In regard to claims 6, 18 merely feeding from the bottom of stack as opposed to the bottom of the stack would be obvious to one of ordinary skill in the art. Bottom stack feeders are well known in the art.

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In regard to claims 27-28, 35-36, 39-40, Blanck discloses a display (Col. 6, lines 57-60).

In particular regard to claim 16, 48, 50, 51, 52 Blank discloses that it is known to temporarily halt the operation of the printer when the stack reaches a particular size (Col. 1, lines 53-54).

In particular regard to claims 37, 44, 46, 54, 56, 57 virtually all sheet feeders, removers use mechanical devices in order to move the sheet from the stack, whether the mechanical device be a roller, oscillator, picker, belt, gripper, etc.

In particular regard to claim 41, Blanck discloses a control system (See e.g. Fig. 4) which meets the limitation of a "computer program product."

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J Kohner whose telephone number is 703-305-8496.

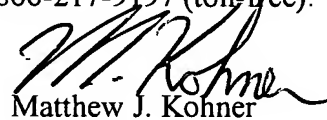
The examiner can normally be reached on Mon-Fri 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Walsh can be reached on 703-306-4173. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).




Matthew J. Kohner

Examiner

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mjk



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